



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/904,600

07/12/2001

Greig C. Scott

05490H028010

2591

22434

7590

07/21/2006

BEYER WEAVER & THOMAS, LLP

P.O. BOX 70250

OAKLAND, CA 94612-0250

EXAMINER

JUNG, WILLIAM C

ART UNIT

PAPER NUMBER

3768

DATE MAILED: 07/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/904,600		SCOTT ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	William Jung		3768	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on January 26, 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1-13 and 15-18 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7, 9, 10, 12, 13, and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by *McKinnon* (US 5,792,055).

McKinnon anticipates all claimed features in claims 1-13 and 15-18.

**Claims 1, 2, 5, 6, 9, 13, and 16:** McKinnon discloses a method and apparatus of imaging a region interest using MRI system comprising steps of placing the patient 3 in a static magnetic field from the magnet 2, applying RF excitation pulses with RF source 6 to the region of interest, and detecting magnetic resonance signals with MRI device from the region of interest with an array of at least two spaced electrodes in proximity to the region of interest where the distal ends of the electrodes include two disconnected or spaced apart RF antenna 18 and 19, insulated or shielded 20 and 21 from each other where the electrodes functions with the conducting medium as a coil for detecting MR signals (col. 3, lines 53-65; col. 4, lines 1-24; col. 4, lines 38-65; col. 5, lines 32-43; col. 5, lines 44-63). In addition, McKinnon discloses feed wires 9 to guide the antenna to the region interest.

**Claims 3 and 4:** The conducting medium being tissue for fluid site specific and McKinnon inherently discloses the limitation of the fluid or tissue medium by virtue of catheter placed in a patient's blood vessel (col. 4, lines 18-24).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7, 10, 12, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over *McKinnon* as applied to claims 1, 5, 6, 13, and 16 above, and further in view of *Glowinski et al* (US 5,868,674).

McKinnon substantially discloses all claimed features in claims 7, 10, and 17 as described above.

**Claims 7, 10, and 17:** However, McKinnon is silent as to the shape of the open wire antenna. This shape of the saddle coil is well in the art as evident by Glowinski et al as shown in figure 3, element 31 showing that the coils are arranged in saddle coil along the circumference of the catheter (col. 5, lines 15-39). Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply teachings of Glowinski et al's alternative coil design to McKinnon's device and method to achieve the claimed invention.

**Claims 12 and 15:** In addition, Glowinski et al disclose that the catheter is used along with interventional instrument such as biopsy needles (col. 1, lines 57-61).

Art Unit: 3768

6. Claims 8, 11, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Glowinski et al* as applied to claim 1 above, and further in view of *Nowinski et al* (US 6,701,173).

McKinnon substantially discloses all claimed features in claims 8, 11, and 18. However, McKinnon does not disclose retractable electrodes that extend out from within the catheter. Nowinski et al disclose the above deficiency where the retractable electrode is shown in figure 23B. Although Nowinski et al's device is not particularly for MR system, the catheter and the electrode within the catheter is MR visible. Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply the teachings of Nowinski et al with McKinnon's disclosure above to improve the catheter device with retractable electrode.

#### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Jung, Ph.D. whose telephone number is 571-272-4739. The examiner can normally be reached on Mon-Fri 8:30 AM to 5 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eleni Mantis-Mercader can be reached on 571-272-4740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3768

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



July 17, 2006

  
BRIAN L. CASLER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700